

CLAIMS

What is claimed is:

1. A polynucleotide comprising the nucleotide sequence of SEQ ID NO:3, wherein the nucleotide sequence encodes an intracellular protein.
2. The polynucleotide of claim 1 wherein the intracellular protein has a predominantly nuclear localization in a cell.
3. A polynucleotide comprising the nucleotide sequence of SEQ ID NO:4, wherein the nucleotide sequence encodes an intracellular protein.
4. A polynucleotide comprising the nucleotide sequence of SEQ ID NO:7, wherein the nucleotide sequence encodes an intracellular protein.
5. The polynucleotide of any one of claim 1, 3, or 4 wherein the polynucleotide is expressed *in vivo* in a prostate cancer cell.
6. The polynucleotide of any one of claims 1, 3, or 4 wherein the expression of the polynucleotide is dependent on at least one of an androgen, a progesterone, an estrogen, and a glucocorticoid.
7. A polynucleotide having at least 90% identity to at least one of SEQ ID NO:3, SEQ ID NO:4, and SEQ ID NO:7, wherein the polynucleotide encodes an intracellular protein.
8. A polynucleotide having at least 95% identity to at least one of SEQ ID NO:3, SEQ ID NO:4, and SEQ ID NO:7, wherein the polynucleotide encodes an intracellular protein.
9. A polypeptide comprising the amino acid sequence of SEQ ID NO:10, wherein the amino acid sequence is expressed *in vivo* in a prostate cancer cell.
10. The polypeptide of claim 9 wherein the polypeptide has a predominantly nuclear localization in a cell.

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11. A polypeptide comprising the amino acid sequence of SEQ ID NO:11, wherein the amino acid sequence is expressed *in vivo* in a prostate cancer cell.
12. A polypeptide comprising the amino acid sequence of SEQ ID NO:14, wherein the amino acid sequence is expressed *in vivo* in a prostate cancer cell.
13. A polypeptide having at least 90% homology to at least one of SEQ ID NO:10, SEQ ID NO:11, and SEQ ID NO:14, wherein the polypeptide is an intracellular protein.
14. A polypeptide having at least 95% homology to at least one of SEQ ID NO:10, SEQ ID NO:11, and SEQ ID NO:14, wherein the polypeptide is an intracellular protein.
15. A method of detecting a neoplastic cell, comprising:
correlating a predetermined quantity of an RNA comprising at least one of SEQ ID NO:17, SEQ ID NO:18, and SEQ ID NO:21 in a cell containing system with a presence of a neoplastic cell, wherein the RNA encodes an intracellular polypeptide; and
detecting at least the predetermined quantity of the RNA in the system.
16. The method of claim 15 wherein the neoplastic cell is a prostate cancer cell.
17. The method of claim 15 wherein the system is a mammal.
18. The method of claim 15 wherein the step of detecting includes hybridization of a probe to at least one of the SEQ ID NO:17, SEQ ID NO:18, and SEQ ID NO:21.
19. The method of claim 18 wherein the probe carries a label that is detected by a process selected from the group consisting of fluorescence detection, luminescence detection, scintigraphy, autoradiography, and formation of a dye.
20. The method of claim 18 wherein at least one nucleotide is enzymatically coupled to the probe while the probe is hybridized to the at least one of the SEQ ID NO:17, SEQ ID NO:18, and SEQ ID NO:21.
21. A method of detecting a neoplastic cell, comprising:
correlating a predetermined quantity of an intracellular polypeptide comprising at least one of SEQ ID NO:10, SEQ ID NO:11, and SEQ ID NO:14 in a cell containing system with a presence of a neoplastic cell; and

detecting at least the predetermined quantity of the intracellular polypeptide in the system.

22. The method of claim 21 wherein the neoplastic cell is a prostate cancer cell or a breast cancer cell.
23. The method of claim 21 wherein the system is a mammal.
24. The method of claim 21 wherein the step of detecting includes specifically binding of a probe to the polypeptide.
25. The method of claim 24 wherein the probe is selected from the group consisting of an antibody, an antibody fragment, a natural ligand of the polypeptide, and a synthetic ligand of the polypeptide.
26. The method of claim 24 wherein the probe carries a label that is detected by a process selected from the group consisting of fluorescence detection, luminescence detection, scintigraphy, autoradiography, and formation of a dye.
27. A method of identifying differentially expressed genes in a target tissue, comprising:
providing a target tissue-specific cDNA library having a plurality of tissue-specific genes, wherein the tissue-specific genes are obtained by suppression subtractive hybridization;
immobilizing a predetermined quantity of tissue-specific genes on a solid phase to form a tissue-specific cDNA array;
hybridizing a first nucleic acid preparation to a first tissue-specific cDNA array to create a first hybridization pattern, wherein the first preparation is prepared from the target tissue without previously exposing the target tissue to a compound;
hybridizing a second nucleic acid preparation to a second tissue-specific cDNA array to create a second hybridization pattern, wherein the second preparation is prepared from the target tissue after previously exposing the target tissue to a compound; and
comparing the first and the second hybridization pattern to identify differentially expressed genes.

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28. The method of claim 27 wherein the target tissue comprises prostate tissue.
29. The method of claim 28 wherein the prostate tissue comprises prostate cancer cells.
30. The method of claim 27 wherein the solid phase comprises a membrane.
31. The method of claim 27 wherein the compound comprises a hormone.
32. The method of claim 27 wherein at least one of the first and second nucleic acid preparations is radiolabeled and wherein the step of comparing comprises phosphorimaging.
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